

TITLE

A METHOD FOR PREPARING PARA-HYDROXYSTYRENE BY
BIOCATALYTIC DECARBOXYLATION OF PARA-HYDROXYCINNAMIC
5 ACID IN A BIPHASIC REACTION MEDIUM

ABSTRACT OF THE DISCLOSURE

A biocatalytic method for preparing para-hydroxystyrene from para-hydroxycinnamic acid is described. The method uses an enzyme source having para-hydroxycinnamic acid decarboxylase activity to catalyze the 10 decarboxylation of para-hydroxycinnamic acid in a biphasic reaction medium to produce para-hydroxystyrene, which is extracted into the organic phase of the biphasic reaction medium. The method results in a high yield of para-hydroxystyrene due to the decreased exposure of the enzyme source to the inhibitory product. The product is readily recovered 15 from the extractant, or may be chemically derivatized directly in the extractant before recovery.